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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,641	07/26/1999	LUIS FELIPE CABRERA	2130	5763

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EXAMINER

LE, DIEU MINH T

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 03/25/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

1

Office Action Summary

Applicati n No.

09/361,641

Applicant(s)

CABRERA ET AL.

Examiner

Dieu-Minh Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed December 23, 2003 in application 09/361,641.
2. Claims 1-48 have been cancelled and claims 49-89 have been added.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

4. Claim 66 is objected to because of the following informalities:

As per claim 66, Applicant claims a computer-readable medium as shown on lines 1-2. However, the claim is not structured to specifically associate the executable programs instructions with the functions being performed, such that there is no doubt that the instructions performing these functions are stored on the computer readable medium. Such an association will eliminate any possible ambiguities that may lead to possible 35 U.S.C 101 problems regarding computer programs. The examiner suggests that if the applicant is trying claim a product claim, the following example is suggest:

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(A computer-readable medium having computer readable program code embodied on said medium for ..., said computer-readable medium comprising:

a set of data...)

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 49-53, 56-60, 63-70, 72-78, 80-81, 83, and 85-89 are rejected under 35 U.S.C. § 102(e) as being anticipated by Perks (U.S. Patent 5,924,102).

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As per claim 49:

Perks explicitly teaches:

- A method for backing up and restoring a computer system software stored persistently [abstract, col. 2, lines 1-7 and 19-21], comprising:
 - invoking an application program interface (*i.e.*, **API**) [col. 3, lines 43-44] for collecting information of the software execution state [col. 3, lines 34-39];
 - invoking an application program interface (*i.e.*, **API**) [col. 3, lines 43-44] for storing [col. 3, lines 65-66] on a medium the collected information of the software execution state [col. 3, lines 34-39];
 - receiving information of the system state [col. 3, lines 12-21] of a hardware device [col. 1, lines 36-40]col. 3, lines 1-4];
 - persistently storing [col. 3, lines 65-66] on the medium the information of the system state of the hardware device [col. 3, lines 46-63];
 - retrieving [col. 1, lines 14-16 and col. 3, lines 60-64] the information of the system state of the hardware device stored on the medium [col. 2, lines 45-67];
 - restoring the state of the hardware device using the retrieved information of the system state of the hardware

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device stored on the medium [col. 1, lines 65-67 and col. 2, lines 1-7];

- retrieving the information of the execution state of the program stored on the medium [col. 1, lines 53-57 and col. 3, lines 60-64];
- restoring the execution state of the program using the retrieved information of the execution state of the program stored on the medium [col. 3, lines 34-37].

As per claims 50-53:

Perks further explicitly teaches:

- querying the system state [col. 3, lines 7-21] of the hardware device (*i.e., identifying and maintaining*) [col. 3, lines 52-56 and col. 6, lines 8-23];
- recording recovery information on the medium (*i.e., a system failure restoration*) [col. 2, lines 22-24] including core operating system files and registry information [col. 3, lines 7-21 and col. 4, lines 1-22].

As per claim 56-57:

Perks further explicitly teaches:

- rebooting the computer system [col. 5, lines 19-25];

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- invoking application programming interface (i.e., API) [col. 1, lines 58-65] for collecting the registry information [col. 4, lines 8-21];
- querying the system state of a catalog of unmodifiable files (*i.e., preventing from modifying and unregister files*) [col. 4, lines 21-22 and lines 51-56].

As per claim 58-60:

Perks further explicitly teaches:

- executing a restore process for restoring the state of the hardware device [col. 3, lines 40-64];
- executing at least one restore program for restoring the execution state of the program [col. 3, lines 46-66 and col. 5, lines 30-35];
- persistently storing on the medium information specifying the programs to copy [col. 3, lines 55-60 and col. 5, lines 25-29] and execute upon restoration [col. 5, lines 30-35].

As per claim 63-64:

Perks further explicitly teaches:

- invoking an application programming interface [col. 1, lines 57-67] for collecting information of an execution state of a program comprises invoking an application

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programming interface for collecting information [col. 6, lines 8-23] of an execution state of an operating system program [col. 3, lines 7-21].

As per claims 65:

Perks further explicitly teaches:

- a computer readable medium having computer-executable components comprising the system of claim 49 [col. 7, line12 through col. 8, line 18].

As per claim 66:

Perks explicitly teaches:

- A computer-readable medium having stored thereon a data structure [abstract, col. 7, line12 through col. 8, line 18], comprising:
 - a set of data representing state information of a hardware device [col. 3, lines 7-21 and lines 34-39];
 - a set of data representing information of the execution state of a program [col. 3, lines 7-21 and lines 34-39];
 - a set of data representing registry information [col. 4, lines 9-15];
 - a set of data representing catalog information [col. 6, lines 8-23];

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As per claims 67-70:

Perks further explicitly teaches:

- a set of data representing instructions for restoring program [col. 7, line12 through col. 8, line 18];
- a set of data representing core operating system files [col. 3, lines 7-21 and lines 34-39];
- a set of data representing state information of a hardware device comprises state information of a hard disk [col. 3, lines 47-64].

As per claims 72-75:

Perks further explicitly teaches:

- A computer-readable medium having stored thereon a data structure [abstract, col. 7, line12 through col. 8, line 18], comprising:
 - a set of data representing state information of a hardware device [col. 3, lines 7-21 and lines 34-39];
 - a set of data representing information of the execution state of a program comprising information of the execution state of an operating system program [col. 3, lines 7-21 and lines 34-39];

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- a set of data representing registry information comprising data corresponding to hardware installed in the system [col. 4, lines 9-15];
- a set of data representing catalog information [col. 6, lines 8-23] comprises a list of unmodifiable files (*i.e., preventing from modifying and unregister files*) [col. 4, lines 21-22 and lines 51-56].

As per claims 76:

Perks explicitly teaches:

- A method for recovering from a failure of a computer system [col. 1, lines 10-15 and lines 50-56, and col. 3, lines 1-6]; comprising:
 - recording recovery information on the medium (*i.e., a system failure restoration* [col. 2, lines 22-24] including core operating system files and registry information [col. 3, lines 7-21 and col. 4, lines 1-22], catalog information [col. 6, lines 8-23], system state of a program [col. 3, lines 7-21 and lines 34-39] and a catalog listing of unmodified files (*i.e., preventing from modifying and unregister files*) [col. 4, lines 21-22 and lines 51-56];
 - restoring the system state of least one hardware device [col. 3, lines 34-39 and col. 5, lines 30-35];

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- creating a restoration environment using recovery information recorded on the medium [col. 3, lines 34-37];
- restoring the execution state of at least one program using the recorded recovery information [col. 3, lines 10-17 and col. 4, lines 34-42].

As per claims 77-78:

Perks further explicitly teaches:

- recording on the medium at least one instructions for restoring configuration information of backup storage device [col. 7, line12 through col. 8, line 18];
- recording on the medium instruction for restoring program [col. 7, line12 through col. 8, line 18].

As per claims 80-81, and 83:

Perks further explicitly teaches:

- recording on the medium recovery information [col. 7, line12 through col. 8, line 18] including invoking an application programming interface [col. 1, lines 57-67] for collecting the execution state of the program [col. 3, lines 7-21];

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- executing a restore process for restoring the system state of at least one hardware device [col. 3, lines 46-64].
- rebooting the computer system after restoring the system state [col. 5, lines 19-28].

As per claims 85-88:

Perks further explicitly teaches:

- executing at least one restoring program for
 - restoring the operating system files [col. 3, lines 7-21];
 - restoring the application program files [col. 3, lines 7-21].
 - restoring the execution state of the program using the retrieving information of the execution state of the program [col. 5, lines 55-54].
- executing special error (i.e., system failure, etc...) handling instructions saved on a backup device [col. 3, lines 1-6].

As per claim 89:

Perks further explicitly teaches:

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- a computer readable medium having computer-executable components comprising the system of claim 76 [col. 7, line 12 through col. 8, line 18].

This is clearly shown that Perks's teaching capabilities are corresponding to Applicant's invention.

6. Claims 54-55, 61-62, 71, 79, 82, 84 are rejected under 35 U.S.C. § 103(a) as being anticipated by Perks (U.S. Patent 5,924,102) in view of McGill, III et al. (US Patent 5,469,573 hereafter referred to as McGill).

As per claims 54-55 and 61:

Perks explicitly teaches:

- A method for backing up and restoring a computer system software stored persistently [abstract, col. 2, lines 1-7 and 19-21], comprising:
 - storing select operating system [col. 3, lines 7-21;
 - rebooting the computer system [col. 5, lines 19-25].

Perks does not disclose:

- installing a device driver.

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However, Perks discloses capability of:

- configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, etc..

[col. 1, lines 51-57].

- a critical file on user's hard disk [col. 3, line 57].

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - writing device driver to a medium [col. 2, lines 43-47].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention first, to realize the Perks's configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, and a critical file on user's hard disk as being the installing a device driver feature as claim by Applicant. This is because all hardware or devices need to have a driver associated with it in order for it to communicating with the system manager and/or system operating system; second, one would apply the writing device driver to a medium feature as taught by McGill in conjunction with the information handling system as

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disclosed by Perks in order to enhance the system recovery and restoration process. One of ordinary skill in the art would have been motivated to do so to provide the data computer system, more specifically to a data backup, recovery, and restoration a mechanism to enhance data storage response time, data rebuilt process, data communication, and data consistency performance throughput.

As per claim 62:

Perks explicitly teaches:

- A method for backing up and restoring a computer system software stored persistently [abstract, col. 2, lines 1-7 and 19-21], comprising:
 - restoring the state of the hardware device [col. 1, lines 17-20 and col. 3, lines 46-64.]

Perks does not disclose limitation of:

- scanning for current hard disk information.

However, Perks discloses capability of:

- **configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, etc...**
[col. 1, lines 51-57].

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- marking critical within the handling system [col. 5, line 5-11].

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - initializing, formatting and partitioning hard disk device [col. 2, 50-54 and col. 7, lines 13-23].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the initializing, formatting and partitioning hard disk device (i.e., scanning for current hard disk information) feature as taught by McGill in conjunction with the information handling system as disclosed by Perks in order to performing the hard disk system recovery and restoration process. One of ordinary skill in the art would have been motivated to do so to provide the data computer system, more specifically to a data backup, recovery, and restoration with a mechanism to ensure the hard disk's memory capacity is error free for its operation process.

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As per claim 71:

Perks explicitly teaches:

- A computer-readable medium having stored thereon a data structure [abstract, col. 7, line 12 through col. 8, line 18].

Perks does not disclose:

- hard disk comprises partition and volume information.

However, Perks discloses capability of:

- modifying, marking, and changing the critical files within the computer handling system (i.e., components within the computer system) [col. 5, lines 1-11].

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - hard disk partition and volume [fig. 6A, col. 7, lines 15-22].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention first, to realize the Perks's modifying, marking, and changing

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the critical files within the computer handling system (i.e., components within the computer system as well as configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, and a critical file on user's hard disk) as being the hard disk comprises partition and volume information as claimed by Applicant. This is because in order for the system device, such as hard disk, to function properly and efficiently, the computer hard disk must be able to be partitioned and segmented to accommodate information in volume. This is further obvious because this partitioning capability is notoriously well known in the art of computer memory and hard disk arena;

second, one would apply the hard disk partition and volume feature as taught by McGill in conjunction with the information handling system as disclosed by Perks in order to enhance the system recovery and restoration process. One of ordinary skill in the art would have been motivated to do so to provide the data computer system, more specifically to a data backup, recovery, and restoration a mechanism to enhance data storage and data consistency performance throughput within the computer hard disk device.

As per claims 79 and 84:

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Perks explicitly teaches:

- A method for recovering from a failure of a computer system [col. 1, lines 10-15 and lines 50-56, and col. 3, lines 1-6].

Perks does not disclose:

- specifying special driver files to load upon restoration and installing a device driver.

However, Perks discloses capability of:

- **configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, etc..**
[col. 1, lines 51-57].
- **a critical file on user's hard disk** [col. 3, line 57].

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - writing device driver to a medium [col. 2, lines 43-47].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention

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first, to realize the Perks's configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, and a critical file on user's hard disk as being the specifying special driver files to load upon restoration and installing a device driver feature as claim by Applicant. This is because all hardware or devices need to have a driver associated with it in order for it to communicating with the system manager and/or system operating system; second, one would apply the writing device driver to a medium feature as taught by McGill in conjunction with the information handling system as disclosed by Perks in order to enhance the system recovery and restoration process. One of ordinary skill in the art would have been motivated to do so to provide the data computer system, more specifically to a data backup, recovery, and restoration a mechanism to enhance data storage response time, data rebuilt process, data communication, and data consistency performance throughput.

As per claim 82:

Perks explicitly teaches:

- A method for recovering from a failure of a computer system [col. 1, lines 10-15 and lines 50-56, and col. 3, lines 1-6].

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Perks does not disclose limitation of:

- scanning a hard disk.

However, Perks discloses capability of:

- configuration files, setup files, and others used for recovery of a system failure, hard disk reformat, etc...

[col. 1, lines 51-57].

- marking critical within the handling system [col. 5, line 5-11].

In addition, McGill substantial teaches the invention.

McGill teaches:

- A method for backing up and restoring a computer system [abstract, fig. 2, col. 1, lines 1-6] comprising:
 - initializing, formatting and partitioning hard disk device [col. 2, 50-54 and col. 7, lines 13-23].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the initializing, formatting and partitioning hard disk device (i.e., scanning for current hard disk information) feature as taught by McGill in conjunction with the information handling system as disclosed by Perks in order to performing the hard disk system recovery and restoration process. One of

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ordinary skill in the art would have been motivated to do so to provide the data computer system, more specifically to a data backup, recovery, and restoration with a mechanism to ensure the hard disk's memory capacity is error free for its operation process.

7. Applicant's arguments with respect to claims 49-89 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated

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from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703) 305-9408. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on (703)305-9713. The fax phone number for this Group is (703) 872-93069.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.


DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2114

DML
3/18/04